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CONTRIBUTIONS TO ORIENTAL HERPETOLOGY\*

V. HONSHU OR HONDO, THE NEIGHBORING ISLANDS OF  
SADO AND AWAJI, AND THE SEVEN ISLANDS OF IDZU

BY

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The material at hand in our collections from Japan shows Honshu or Hondo Island, the largest island of Japan proper, to be inhabited by most of the species represented from the other islands constituting the Japanese Empire, and to have a fauna closely related to certain species found on the opposite mainland.

All of the species found on Sado and Awaji islands are represented in our collections by specimens from Hondo, while *Eumeces laticutatus okadae* seems to be confined to the Seven Islands of Idzu.

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## HONDO ISLAND

1. *Triturus pyrrhogaster* (Boie)

Our collection includes a large series of specimens of this salamander from the following localities:

- 16022 to 16037. Kobe, Settsu Province, Sept. 24, 1906.
- 16324 to 16327. Yura, Tango Province, Sept. 20, 1908.
- 16328 to 16340. Miyazu, Tango Province, Oct. 1908.
- 25116 to 25123. Ichinoseki, Rikuchu Province, 1910.
- 25124 to 25127. Yamashiro, Kaga Province, 1910.
- 25128 to 25132. Mimaya, Rikuoku Province, 1910.
- 25133. Nakayama, Rikuoku Province, 1910.
- 25134 to 25137. Inawashiro, Iwashiro Province, 1910.
- 25138 to 25140. Ina, Rikuoku Province, 1910.
- 25958 to 25966. Kawabe, Rikuoku Province, 1910.
- 26717 to 26722. Sekiya, Himotsuke Province, 1910.
- 33044. Kobe, Settsu Province, May 3, 1911.

2. *Megalobatrachus japonicus* (Temminck)

A single specimen (No. 16016) was collected in Mimasaka Province, Sept. 20, 1905. A large skeleton (No. 39684) is labeled merely Japan.

3. *Hynobius lichenatus* Boulenger

Dunn has studied our salamanders of the family Hynobiidae and has referred to this species more than thirty specimens, as follows:

- 26716. A larva from Mimaya, Rikuoku Province, 1910.
- 26708. A larva from Ozorezan, Rikuoku Province, 1910.
- 25630 to 25749. Larvæ from Shiogama, Rikuzen Province, 1910.
- 26685 to 26707. Adult specimens from Inawashiro, Iwashiro Province, 1910.
- 16019 to 16020. Hakone, Idzu Province.

These specimens are called *Hynobius peropus* by Dunn (Proc. Amer. Acad. Arts and Sci., Vol. 58, No. 13, pp. 445-523, June, 1923).

4. *Hynobius naevius* (Schlegel)

Two cotypes from the original series (Nos. 64467, 64468) are listed here, although it is not positively known that they came from this island, the type locality being stated as the mountainous parts of Hondo and Shikoku.

5. *Hynobius kimurai* Dunn

Two larvæ (Nos. 16322, 16323) from Miyazu, Tango Province, 1906, and one grown specimen (No. 27258) from Hida Province are referred to this species by Dunn.

### 6. *Hynobius vandenburghi* Dunn

Represented by five specimens as follows:

The type (No. 26714), an adult male, collected at Nara, Yamato Province, May 1907.

Three (Nos. 25948 to 25950) from central Hondo.

One (No. 35931) labeled merely Japan.

### 7. *Pachypalaminus boulengeri* Thompson

This species is represented by the type specimen only (No. 33192), collected at Odaigahara Mountain, Yamato Province.

### 8. *Onychodactylus japonicus* (Houttuyn)

All our specimens were collected in Honshu, as follows:

- 16017 and 16018. Hakone Lake, Sagami Province.  
16021. Yokohama, Musashi Province.  
25142 to 25481. Mimaya, Rikuoku Province, 1910.  
25482 to 25629. SE. Osorezan, Rikuoku Province, 1910.  
26709 to 26713. Sawatari, Kotsuke Province, 1910.  
26715. Mimaya, Rikuoku Province, 1910.  
49145 and 49146. Osoresan, Rikuoku Province.

### 9. *Bufo vulgaris japonicus* Schlegel

The large series of toads now at hand tends to show that only one subspecies of *Bufo vulgaris* inhabits the island of Hondo. Neither *Bufo formosus* nor *Bufo smithi* can be recognized as distinct, for there is too much variation in the size of the tympanum and web, and length of hind limb, in the series studied. The differences in size of tympana and webs seem to be partly sexual, but this is obscured by sexual variation. Notes on our specimens from Hondo follow.

15959. Kobe, Settsu Province, October, 1906. Large web; small tympanum; faint jaw line; moderate lateral pigmentation; belly heavily blotched.

15960 to 15965. Kobe, Settsu Province, September, 1906. Large webs; moderate or small tympana; jaw line present except in 15960; lateral pigmentation heavy, except in 15960, 15964, and 15965. Belly heavily spotted except in No. 15961, which has very few spots; and Nos. 15964, and 15965, which have moderate spotting. Nos. 15960, 15961, and 15962 have very spiny thighs; Nos. 15964 and 15965 have complete or partial light dorsal line; No. 15960 has first and second fingers equal; with pads, the others have the second finger longer than the first; without nuptial pads. Nos. 15961 and 15962 are females containing eggs.

16307 to 16321. Kobe, Settsu Province, October 19 to 28, 1908. The web is small in 16313, 16319, 16321; moderate in 16307, 16308, 16312, 16317, 16320; large in 16309, 16310, 16311, 16312, 16314, 16315, 16316, 16318. Tympanum small in 16307, 16313, 16320, 16321; moderate in 16308, 16309, 16311, 16314, 16315, 16316, 16317, 16318; large in 16310, 16312, 16319. Lateral pigment little in 16308, 16311, 16313; moderate in 16307, 16318; very pronounced in the others. Belly pigment little in 16318; moderate in 16314, 16316; very pronounced in the others. Either the first or second finger may be the longer; but in 16307, 16308, 16309, 16315 they are about equal. Nuptial finger pads are present in 16308, 16311, 16314, 16315, 16318; which have fingers of all the various lengths. The line along the lower jaw is present.

16349 to 16353. Kobe, Settsu Province, February 22, 1909. All have large webs, small or moderate tympana, heavy lateral and belly lateral and belly markings, and the line on the lower jaw. In No. 16351 the tympanum equals its distance from eye. No. 16352 is a female containing eggs.

16372. Kobe, Settsu Province, June 10, 1909. Rather large web; tympanum moderate; much lateral pigmentation; jaw line present.

16300 to 16306. Kyoto, Yamashiro Province, October 8, 22, 1908. Large webs; small tympana; jaw line present; much pigmentation of sides and belly, except in Nos. 16300 and 16304.

16290. Yura, Tango Province, September 25, 1909. Very small web; large tympanum; jaw line present; much black on sides and belly.

16291 to 16298. Miyazu, Tango Province, October, 1908. Web small, except in Nos. 16295 and 16298; tympana moderate to large; jaw line present; much lateral pigment; belly heavily spotted with black, except in Nos. 16292, 16293, and 16294, which have a few spots. No. 16298 is a female containing eggs.

25895 to 25908. Inawashiro, Iwashiro Province, 1910. Web small in Nos. 25895, 25896, 25898, 25904, and 25908; moderate in Nos. 25899, 25901, 25902, 25903, 25906, and 25907; large in Nos. 25900, and 25905. Tympanum small in Nos. 25897, 25901, and 25906; moderate in Nos. 25896, and 25900; large in Nos. 25895, 25898, 25899, 25903, 25904, 25905, 25907, and 25908; very large in No. 25902. Jaw line present in all. Not much lateral black in Nos. 25896, 25898, 25902, 25905, and 25908; not much black on belly in Nos. 25899, and 25908; a broken dorsal line in 25898.

25909 to 25921. Toyohara, Shimotsuke or Yashu Province, 1910. Large webs; tympana moderate; no jaw line; few or no belly spots. A slight tarsal ridge or row of tubercles in Nos. 25912, 25916, and 25917.

25922 and 25923. Mimaya, Rikuoku Province, 1910. Small webs; large tympana; much black on belly; reduced lateral pigmentation.

25924 and 25925. Kanida, Rikuoku Province, 1910. Small webs; large tympana; jaw line present.

25926. Shiogama, Rikuzen Province, 1910.

25927 to 25929. Tsugaru Mountains, Rikuzen Province, 1910. Small webs; large tympana; jaw line present; much lateral pigmentation; much or little ventral black.

25945 to 25947. Kawabe. Rikuoku Province, 1910. Very large webs; large tympana; jaw line present; moderate or little lateral black (largely replaced with red in two); little black on belly, except in No. 25945.

25951. Shimofuro, Rikuoku Province, 1910. Small web; large tympanum; jaw line present; no lateral black; many small black spots on belly.

#### 10. *Hyla arborea japonica* Günther

A very few specimens in the large series listed below are without the dark mark between the nostril and eye.

- 15967 to 15969. Kamakura Province, Oct. 13, 1906.  
 15970. Yokohama, Musashi Province, Oct. 1906.  
 15971. Kyoto, Yamashiro Province, Sept. 24, 1906.  
 16258. Yura, Tango Province, Sept. 20, 1908.  
 16260. Maiko, Tango Province, Sept. 14, 1908.  
 16262 to 16265. Miyazu, Tango Province, Sept. 24, 1908.  
 16269 and 16270. Miyazu, Tango Province, Sept. 24, 1908.  
 16272 and 16273. Miyazu, Tango Province, Sept. 24, 1908.  
 16361 to 16371. Ashiya, Settsu Province, May 9, 1909.  
 25870 to 25872. Mimaya, Rikuoku Province, 1910.  
 25873 to 25877. Inawashiro, Iwashiro Province, 1910.  
 25878 to 25880. Matsushima, Shinshu Province, 1910.  
 25881 and 25882. Asamushi, Rikuoku Province, 1910.  
 25883. Kanida, Rikuoku Province, 1910.  
 25936 to 25944. Kawabe, Rikuoku Province, 1910.  
 35910. Kobe, Settsu Province, 1911.  
 35912. Kobe, Settsu Province, 1911.  
 35914 to 35917. Kobe, Settsu Province, April 18–Jan. 20, 1912.  
 35919. Miyazu, Tango Province, July 6, 1911.

#### 11. *Rana nigromaculata nigromaculata* Hallowell

In the large series at hand the dorsal line is absent only in Nos. 15991, 15992, 16000, 16003, 16009, 16099, 16113, and 16114. This line is present only on the head and sacral region in No. 15997. In Nos. 16001 and 26727 this line is in its normal position on the head, but, on the body, it leaves the midline and crosses the left dorso-lateral ridge, returning to the midline posteriorly. Our Hondo specimens are from the following localities:





- 15991 to 15999. Yokohama, Musashi Province, Oct. 7, 1906.  
 16000 to 16011. Kobe, Settsu Province, Sept.-Oct., 1906.  
 16098 to 16101. Kobe, Settsu Province, Sept. 14, 1908.  
 16102 to 16113. Yura, Tango Province, Sept. 25, 1908.  
 16114 and 16115. Yura, Tango Province, Sept. 25, 1908.  
 16116 and 16117. Miyazu, Tango Province, Sept. 24, 1908.  
 16118 to 16122. Miyazu, Tango Province, Oct. 1908.  
 25816. Shiogama, Rikuzen Province, 1910.  
 25817 to 25819. Tanabu, Rikuoku Province, 1910.  
 25820 and 25821. Aomori, Rikuoku Province, 1910.  
 25822. Ichinoseki, Rikuoku Province, 1910.  
 25823. Asamushi, Rikuoku Province, 1910.  
 25845 and 25846. Inawashiro, Iwashiro Province, 1910.  
 25847. Ina, Rikuoku Province, 1910.  
 25930. Kawabe, Rikuoku Province, 1910.  
 26727. Sekiya, Himotsuke Province, 1910.  
 33041 and 33042. Kobe, Settsu Province, April 13, 1910.

## 12. *Rana temporaria temporaria* Linnaeus

Dr. Stejneger (Proc. Biol. Soc. Wash., Vol. 37, 1924, pp. 73-78) has shown that two kinds of woodfrogs have been found on Hondo. These he calls *Rana japonica* and *Rana temporaria ornativentris*. He shows that in the frogs of the *Rana temporaria* subgroup the anterior dorso-lateral glandular ridges flare out laterally toward the tympanum, while in *Rana japonica* these ridges proceed nearly straight forward to the eyelid. He states that the large, blackish spots on the throat and breast are alone sufficient to separate *Rana temporaria ornativentris* (Werner) from typical *Rana temporaria*.

In our series of woodfrogs from Hondo I find that the dorso-lateral folds flare out toward the tympanum in the following:

- 16146 to 16150. Miyazu, Tango Province, Oct. 1, 1908.  
 25762 to 25769. Mimaya, Rikuoku Province, 1910.  
 25791 to 25798. Tanabu, Rikuoku Province, 1910.  
 25812 and 25813. Tappanzaki, Rikuoku Province, 1910.  
 25815. Sendai, Rikuzen Province, 1910.  
 25824 to 25827. Osorezan, Rikuoku Province, 1910.  
 25828 and 25829. Omasaki, Rikuoku Province, 1910.  
 25931. Kawabe, Rikuoku Province, 1910.  
 35911. Kobe, Settsu Province, May 3, 1911.

Many of these specimens show an outer, metatarsal tubercle, and most of them have shorter snouts and larger webs than are found in typical *Rana japonica*. Nearly all these frogs have the throat more or less suffused or clouded with brown or slate, but less than half of them have any definite spotting of the throat or breast. As spotting of these regions occurs in specimens of *Rana temporaria* from Sakhalin, Korea and Tsu-shima, it appears to be a question whether the name *ornativentris* for these frogs from Hondo should be retained.

I have also before me a series of thirteen frogs (Nos. 25799 to 25811) collected at Inawashiro, Iwashiro Province, in 1910. These seem to be somewhat intermediate in their characters. The dorso-

lateral ridge flares out in Nos. 25799, 25800, 25801, 25803, 25806, 25807, 25808, and 25809; but is nearly straight in Nos. 25802, 25804, 25805, 25810, and 25811. The throat is spotted in No. 25808; clouded in Nos. 25799, 25800, 25801, 25802, 25804, 25805, 25809, and 25810; and white in Nos. 25803, 25807 and 25811.

### 13. *Rana japonica* (Günther)

To this name may be referred the frogs with dorso-lateral folds nearly straight anteriorly, snout long, throat and breast yellowish white, and smaller webs. Such are the following:

- 16013 and 16014. Yokohama, Musashi Province, Oct. 7, 1906.  
 16015. Kobe, Settsu Province, Sept., 1906.  
 16127. Kobe, Settsu Province, Sept. 14, 1908.  
 16128 to 16145. Yura, Tango Province, Sept. 20, 1908.  
 16151 to 16154. Miyazu, Tango Province, Oct. 1908.  
 25814. Shiogama, Rikuzen Province, 1910.  
 35918. Miyazu, Tango Province, July 6, 1911.

### 14. *Rana rugosa* Schlegel

The very large series at hand appears to be perfectly typical. A quite small number of the specimens show a middorsal light stripe. The following list gives the localities of collection.

- 15972 to 15990. Kobe, Settsu Province, Sept. 1906.  
 16210 to 16217. Miyazu, Tango Province, Sept. 24, 1908.  
 16218 to 16226. Miyazu, Tango Province, Oct., 1908.  
 16227 to 16239. Yura, Tango Province, Sept. 20, 1908.  
 16240 and 16241. Yura, Tango Province, Oct. 25, 1908.  
 16242 to 16252. Kobe, Settsu Province, Oct. 1908.  
 16359 and 16360. Ashiya, Settsu Province, May 9, 1909.  
 25830 to 25833. Shiogama, Rikuzen Province, 1910.  
 25834. Aomori, Rikuoku Province, 1910.  
 25835 and 25836. Inawashiro, Iwashiro Province, 1910.  
 25837 and 25838. Asamushi, Rikuoku Province, 1910.  
 25839. Mimaya, Rikuoku Province, 1910.  
 25840. Nakayama, Aki Province, 1910.  
 25841 to 25843. Ina, Rikuoku Province, 1910.  
 25844. Ichinoseki, Rikuchu Province, 1910.  
 25848 and 25849. Ichinoseki, Rikuchu Province, 1910.  
 25932 to 25935. Kawabe, Rikuoku Province, 1910.  
 26723 to 26726. Sekiya, Himotsuke Province, 1910.  
 33043 and 35907. Kobe, Settsu Province, 1911.  
 35913 and 35930. Kobe, Settsu Province, 1912.

### 15. *Rana limnocharis* Wiegmann

This frog is represented by twenty-four specimens from Hondo.

16163. Kobe, Settsu Province, Sept. 14, 1908.  
 16164 to 16167. Yura, Tango Province, Sept. 20, 1908.  
 16168 to 16179. Miyazu, Tango Province, Sept. 24, 1908.  
 16180 to 16182. Miyazu, Tango Province, Oct. 1, 1908.  
 16348. Miyazu, Tango Province, Oct. 1, 1908.  
 35908 and 35909. Kobe, Settsu Province, April 26, 1911.

16. *Rhacophorus schlegelii schlegelii* (Günther)

Twenty specimens from Hondo are at hand, as follows:

- 16255 to 16257. Yura, Tango Province, Sept. 20, 1908.  
 16259. Yura, Tango Province, Sept. 20, 1908.  
 16261. Miyazu, Tango Province, Sept. 24, 1908.  
 16266 to 16268. Miyazu, Tango Province, Sept. 24, 1908.  
 16271. Miyazu, Tango Province, Sept. 24, 1908.  
 16274 to 16276. Miyazu, Tango Province, Sept. 24, 1908.  
 16277 to 16279. Miyazu, Tango Province, Oct. 1-5, 1908.  
 25892 and 25893. Tappanzaki, Rikuoku Province, 1910.  
 25894. Aomori, Rikuoku Province, 1910.  
 26734. Yamato, Yamato Province, 1910.  
 33051. Miyazu, Tango Province, July 6, 1911.

17. *Polypedates buergeri* (Schlegel)

The ten specimens listed below require no special comment.

15966. Mount Fuji, Suguru Province, May, 1898.  
 24337. Kobe, Settsu Province.  
 25884 to 25886. Lake Inawashiro, Iwashiro Province, 1910.  
 25887 to 25891. Yamashiro, Kaga Province, 1910.

18. *Gekko japonicus* (Duméril & Bibron)

This species is represented by eleven specimens from Hondo.

16041. Osaka, Settsu Province, Oct. 26, 1908.  
 33020 to 33026. Kobe, Settsu Province, July 10, 1911.  
 35904 to 35906. Kobe, Settsu Province, August, 1911.

19. *Takydromus tachydromoides* (Schlegel)

More than fifty specimens from Hondo are at hand. There appears to be no character to distinguish them from the grass lizards of the other islands of Japan proper.

- 15830 to 15833. Yokohama, Musashi Province, Oct. 1906.  
 15834 to 15851. Kobe, Settsu Province, Sept. 23-25, 1906.  
 16042. Maiko, Harima Province, Sept. 14, 1908.  
 16043 to 16045. Miyazu, Tango Province, Sept. 1908.  
 16046 to 16056. Miyazu, Tango Province, Oct. 1, 1908.  
 16062. Kobe, Settsu Province, Oct. 28, 1908.  
 16354 to 16357. Kobe, Settsu Province, June 10, 1909.  
 25952. Osorezan, Rikuoku Province, 1910.  
 25953. Shiogama, Rikuzen Province, 1910.  
 25954. Inawashiro, Iwashiro Province, 1910.  
 33035 to 33040. Kobe, Settsu Province, April 13, 1911.  
 35900 to 35903. Kobe, Settsu Province, 1911.

20. *Eumeces laticutatus laticutatus* (Hallowell)

This lizard is represented in our collections by the following specimens from Hondo:



- 15852 and 15853. Kobe, Settsu Province, Sept. 24, 1906.  
 16358. Kobe, Settsu Province, Sept. 24, 1906.  
 33027 to 33031. Kobe, Settsu Province, April 13, 1911.  
 33032 to 33034. Kobe, Settsu Province, May 3, 1911.  
 33045 to 33050. Miyazu, Tango Province, July 6, 1911.  
 35899. Kobe, Settsu Province, 1911.

### 21. *Natrix vibakari vibakari* (Boie)

Nine specimens of this snake are represented as follows:

- 15854 and 15855. Hakone, Suruga Province, Oct. 28, 1906.  
 15856 and 15860. Yokohama, Musashi Province, Oct. 1-7, 1906.  
 15861. Yokohama, Musashi Province, 1906.  
 16085. Miyazu, Tango Province, Oct. 5, 1908.

The scale counts of these specimens are as follows:

No.	Sex	Scale Rows	Gastrosteges	Urosteges	Supralabials	Infralabials	Preoculars	Postoculars	Loreal	Temporals
15854	♂	19	146	77c	7-7	8-8	1-1	3-2	1-1	1+1-1+1
15855	♀	19	143	76c	7-7	8-8	1-1	2-2	1-1	1+1-1+1
15856	♂	19	148	69c	7-7	8-8	1-1	3-3	1-1	1+1-1+1
15857	♂	19	145	73c	7-7	8-8	1-1	3-3	1-1	1+1-1+1
15858	♀	19	145	70c	7-7	9-8	1-1	3-3	1-1	1+1-1+1
15859	♂	19	148	58c	7-7	8-8	1-1	3-3	1-1	1+1-1+1
15860	♂	19	149	71c	7-7	8-8	1-1	3-3	1-1	1+1-1+1
15861	♀	19	150	70c	7-7	8-8	1-1	3-3	1-1	1+1-1+1
16085	♂	19	146	74c	8-7	8-8	1-1	3-3	1-1	1+1-1+1

### 22. *Natrix tigrina tigrina* (Boie)

This snake is represented by more than ninety specimens from Hondo. The combined gastrostege and urostege counts vary from 113 to 142, but usually are more than 126, as stated by Stejneger. The urosteges range from 59 to 80. The localities and the scale counts for these specimens are given below.

- 15862 to 15925. Yokohama, Musashi Province, Oct. 1, 1906.  
 15926 to 15929. Kobe, Settsu Province, Sept. 25, 1906.  
 15932. Yumoto, Suruga Province, Oct. 20, 1906.  
 15933. Hakone, Suruga Province, Oct. 20, 1906.  
 16063 to 16069. Yura, Tango Province, Sept. 25, 1908.  
 16070 to 16077. Miyazu, Tango Province, Sept. 23-Oct. 11, 1908.  
 25955. Osorezan, Rikuoku Province, 1910.  
 26677. Inawashiro, Iwashiro Province, 1910.  
 26678. Ichinoseki, Rikuoku Province, 1910.  
 26680. Mimaya, Rikuoku Province, 1910.  
 26682. Tappanzaki, Rikuoku Province, 1910.  
 26684. Osorezan, Rikuoku Province, 1910.  
 33018. Kobe, Settsu Province, May 3, 1911.

No.	Sex	Scale Rows	Gastro-steges	Uro-steges	Anal	Supra-labials	Infra-labials	Pre-oculars	Post-oculars	Temporals
15862	♂	19	156	74c	2	7-7	9-9	2-2	3-3	1+2-1+1
15863	♂	19	157	69c	2	7-7	9-9	2-2	3-3	1+2-1+2
15864	♂	19	158	76c	2	7-7	9-9	2-2	3-3	1+2-1+2
15865	♂	19	157	75c	2	7-7	9-9	2-2	3-3	1+2-1+2
15866	♂	19	154	70c	2	8-7	10-10	2-2	3-3	1+2-1+2
15767	♂	19	159	50+	2	7-7	9-9	2-2	3-4	1+2-1+2
15868	♂	19	162	68c	2	6-7	9-8	2-2	3-3	1+2-1+2
15869	♀	19	163	67c	2	7-7	9-9	2-2	3-3	1+2-1+2
15870	♂	19	163	71c	2	7-7	8-9	2-2	3-3	1+2-1+1
15871	♀	19	166	72c	2	7-7	8-8	2-2	3-4	1+2-1+2
15872	♀	19	165	58+	2	7-7	8-8	2-2	3-3	1+2-1+2
15873	♀	19	161	65c	2	7-7	9-9	2-2	3-3	1+2-1+2
15874	♀	19	169	72c	2	7-7	9-9	2-2	3-3	1+2-1+2
15875	♂	19	160	72c	2	6-7	8-9	2-2	3-3	1+2-1+2
15876	♂	19	155	28+	2	7-7	9-9	2-2	3-3	1+2-1+2
15877	♂	19	159	76c	2	6-7	8-9	2-2	3-3	1+2-1+2
15878	♂	19	156	73c	2	7-7	9-9	2-2	3-3	1+2-1+2
15879	♂	19	161	64c	2	7-7	9-9	2-2	3-3	1+2-1+2
15880	♀	19	162	65c	2	7-7	9-9	2-2	4-3	1+2-1+2
15881	♂	19	162	80c	2	7-7	9-9	2-2	2-2	1+2-1+2
15882	♀	19	162	69c	2	7-7	8-9	2-2	3-3	1+2-1+2
15883	♂	19	159	78c	2	7-7	9-9	2-2	3-3	1+2-1+2
15884	♂	19	159	78c	2	7-7	9-9	2-2	3-3	1+2-1+2
15885	♂	19	162	73c	2	6-7	8-9	2-2	3-4	1+2-1+2
15886	♂	19	162	73c	2	6-6	9-8	2-2	3-3	1+1-1+2
15887	♂	19	161	73c	2	7-7	8-9	2-2	4-3	1+2-1+2
15888	♀	19	162	66c	2	7-7	10-9	2-2	3-3	1+2-1+2
15889	♂	19	155	70c	2	7-7	9-9	2-2	3-3	1+2-1+2
15890	♀	19	162	71c	2	7-7	9-9	2-2	4-3	1+2-1+2
15891	♂	19	154	73c	2	7-7	9-9	2-2	3-4	1+2-1+2
15892	♂	19	158	66c	2	7-7	9-10	2-2	3-3	1+2-1+2
15893	♀	19	165	68c	2	7-7	9-9	2-2	3-3	1+2-1+2
15894	♂	19	160	63c	2	7-7	8-8	2-2	3-3	1+2-1+2
15895	x	19	164	73c	2	7-7	9-9	2-2	3-3	1+2-1+2
15896	♂	19	161	54+	2	6-6	8-7	2-2	3-3	1+2-1+2
15897	♂	19	160	72c	2	6-6	8-9	2-2	3-3	1+2-1+2
15898	♀	19	162	62c	2	7-7	8-9	2-2	3-3	1+2-1+2
15899	♂	19	157	78c	2	7-7	9-9	2-2	3-3	1+2-1+2
15900	♀	19	167	71c	2	7-7	9-8	2-2	3-3	1+2-1+2
15901	♂	19	159	75c	2	7-7	8-9	2-2	3-3	1+2-1+2
15902	♀	19	159	30+	2	6-6	9-9	2-2	3-3	1+2-1+2
15903	♂	19	160	58+	2	7-7	9-9	2-2	3-3	1+2-1+2
15904	♂	19	161	73c	2	7-7	9-9	2-2	3-3	1+2-1+2
15905	♀	19	161	59+	2	7-7	9-9	2-2	3-3	1+2-1+2
15906	♂	19	158	76c	2	7-7	9-9	2-2	3-3	1+2-1+2
15907	♀	19	162	69c	2	7-7	9-9	2-2	3-3	1+2-1+2
15908	♀	19	161	70c	2	7-7	9-9	2-2	3-2	1+2-1+2
15909	♀	19	162	70c	2	7-7	9-9	2-2	3-3	1+2-1+2
15910	♂	19	159	75c	2	7-7	9-9	2-2	3-3	1+2-1+2
15911	♀	19	163	71c	2	7-7	9-9	2-2	3-3	1+2-1+2
15912	♂	19	162	74c	2	6-7	9-9	2-2	3-3	1+2-1+2
15913	♀	19	164	70c	2	7-7	9-9	2-2	3-3	1+2-1+2
15914	♂	19	157	75c	2	7-7	9-9	2-2	3-3	1+2-1+2
15915	♂	19	162	78c	2	7-7	9-9	2-2	4-4	1+2-1+2
15916	♀	19	163	75c	2	7-7	9-9	2-2	3-4	1+2-1+2
15917	♂	19	160	75c	2	7-7	9-9	2-2	3-3	1+2-1+2
15918	♂	19	157	59+	2	7-7	9-9	2-2	3-3	1+2-1+2
15919	♀	19	161	66c	2	7-7	8-8	2-2	3-3	1+2-1+1
15920	♀	19	162	66c	2	7-7	10-9	2-2	3-4	1+2-1+2

No.	Sex	Scale Rows	Gastrosteges	Urosteges	Anal	Supralabials	Infralabials	Preoculars	Postoculars	Temporals
15921	♀	19	162	54+	2	7-7	9-8	2-2	3-3	1+2-1+2
15922	♀	19	162	71c	2	7-7	9-9	2-2	4-4	1+2-1+2
15923	♀	19	167	64c	2	7-7	9-9	2-2	3-3	1+2-1+2
15924	x	19								
15925	♂	19	159	73c	2	7-6	8-8	2-2	3-3	1+2-1+2
15926	♀	19	157	73c	2	7-6	9-9	1-1	3-3	1+2-1+2
15927	♀	19	161	70c	2	7-7	10-10	2-2	3-4	1+2-1+2
15928	♀	19	160	66c	2	7-7	9-9	2-2	4-3	1+2-1+2
15929	♂	19	156	79c	2	7-7	9-8	2-2	3-3	1+2-1+2
15932	♀	19	165	69c	2	7-7	10-9	2-2	3-3	1+2-1+2
15933	♀	19	163	68c	2	7-7	10-10	2-2	4-4	1+2-1+2
16063	♂	19	163	74c	2	7-7	8-9	2-2	3-3	1+2-1+2
16064	♂	19	155	77c	2	7-7	8-8	2-2	3-3	1+2-1+2
16065	♂	19	156	79c	2	7-7	10-9	2-2	3-3	1+2-1+2
16066	♂	19	158	76c	2	7-7	9-9	2-2	3-3	1+2-1+2
16067	♀	19	157	70c	2	7-7	9-10	2-2	3-3	1+2-1+2
16068	♀	19	164	72c	2	7-7	9-9	2-2	3-3	1+2-1+2
16069	♀	19	158	73c	2	7-7	9-9	2-2	4-4	1+2-1+2
16070	♀	19	155	72c	2	7-7	10-10	2-2	3-3	1+2-1+2
16071	♂	19	158	74c	2	7-7	10-9	2-2	3-3	1+2-1+2
16072	♀	19	158	70c	2	6-7	10-10	2-2	3-3	1+2-1+3
16073	♀	19	155	79c	2	7-7	9-9	2-2	3-3	1+2-1+2
16074	♀	19	160	75c	2	7-7	10-10	2-2	3-3	1+2-1+2
16075	♀	19	155	80c	2	7-7	10-10	2-2	3-3	2+2-1+2
16076	♀	19	158	71c	2	7-7	10-10	2-2	3-3	1+2-1+2
16077	♀	19	162	61c	2	7-7	10-9	2-2	3-3	1+2-1+2
25955	♀	19	152	61c	2	8-7	10-10	2-2	3-3	1+2-1+2
26677	♂	19	154	63c	2	7-7	8-8	2-2	3-3	1+2-1+2
26678	♂	19	154	69c	2	7-7	9-9	2-2	3-3	1+2-1+2
26680	♂	19	154	61c	2	8-7	9-9	2-2	3-3	1+2-1+2
26682	♂	19	153	69c	2	8-8	10-10	2-2	3-3	1+2-1+2
26684	♂	19	154	59c	2	6-6	9-9	2-2	3-3	1+2-1+2
33018	♂	19	161	77c	2	7-7	9-9	2-2	3-3	1+2-1+2

The loreals are 1-1 in all except Nos. 15887 and 15929, which have none.

### 23. *Elaphe climacophora* (Boie)

No. 15947 is a female, collected at Tokyo, Musashi Province, in August, 1906. It has scales in 25 rows, gastrosteges 225, urosteges 99c, anal divided, supralabials 8-8, infralabials 11-11, preoculars 1-1, postoculars 2-2, loreal 1-1, and temporals 2+3-2+3.

### 24. *Elaphe quadrivirgata* (Boie)

Sixteen Hondo specimens of this snake are at hand.

- 15950 to 15953. Yokohama, Musashi Province, Oct. 1, 1906.  
 15954 and 15955. Kobe, Settsu Province, Sept. 25, 1906.  
 16082 to 16084. Miyazu, Tango Province, Sept.-Oct. 5, 1908.  
 16086 and 16087. Yura, Tango Province, Sept. 21 and 25, 1908.  
 16089 to 16091. Yura, Tango Province, Sept. 25 and 26, 1908.  
 26679. Mimaya, Rikuoku Province, 1910.  
 33019. Kobe, Settsu Province, May 3, 1911.

The scale counts are as follows:

No.	Sex	Scale Rows	Gastro-steges	Uro-steges	Anal	Supra-labials	Infra-labials	Pre-oculars	Post-oculars	Temporals
15950	♂	19	208	48+	2	8-8	9-9	2-2	2-2	2+2-2+3
15951	♂	19	202	88c	2	8-8	9-10	2-2	2-2	2+2-2+3
15952	♂	19	204	88c	2	9-8	10-10	1-2	2-2	2+3-2+3
15953	♂	19	202	90c	2	7-7	10-9	1-1	2-2	2+2-2+3
15954	♀	19	203	86c	2	8-8	10-10	2-2	2-2	2+2-2+2
15955	♂	19	205	90c	2	8-8	10-10	1-2	2-2	2-2
16082	♀	19	198	77c	2	8-8	9-10	1-1	2-2	2+2-2+2
16083	♂	19	204	92c	2	8-8	9-10	1-1	2-2	2+3-2+2
16084	♀	19	198	81c	2	8-8	10-10	1-1	2-2	2+2-2+2
16086	♀	19	206	81c	2	8-8	10-10	2-2	2-2	2+2-2+2
16087	♀	19	203	77c	2	8-8	10-10	2-2	2-2	2+2-2+2
16089	♂	19	203	87c	2	8-8	10-10	2-2	2-2	1+2-2+2
16090	♂	19	203	89c	2	8-8	10-10	2-1	2-2	2+2-2+2
16091	♀	19	198	87c	2	8-8	10-10	2-2	2-2	2+3-2+3
26679	♂	19	201	68+	1	8-8	10-9	2-2	2-2	2+2-2+2
33019	♂	19	203	88c	2	8-8	10-10	2-2	2-2	2+2-2+2

The gastrosteg counts of Hondo specimens range from 198 to 213, the averages being for nineteen males 205; for eighteen females 203.2; and for fifty specimens 204.2. The urosteges range from 70 to 92, and average for fifteen males 87.6; for eighteen females 82.1; and for forty-five specimens 84.9.

## 25. *Elaphe conspicillata* (Boie)

The collection includes only three snakes of this species from Hondo.

15945. Yumoto, Suruga Province, Oct. 20, 1906.

15946. Yokohama, Musashi Province, Oct. 20, 1906.

26676. Inawashiro, Iwashiro Province, 1910.

The scale counts are as follows:

No.	Sex	Scale Rows	Gastro-steges	Uro-steges	Anal	Supra-labials	Infra-labials	Pre-oculars	Post-oculars	Temporals
15945	♀	21	213	69c	2	7-7	9-9	1-1	2-2	1+2-1+2
15946	♂	21	202	68c	2	7-7	9-9	1-1	2-2	1+2-1+2
26676	♂	21	214	54+	2	7-7	9-9	1-1	2-2	1+2-1+2

26. *Dinodon orientale* (Hilgendorf)

We have one specimen (No. 15937) from Kobe, Settsu, Province, Sept. 24, 1906, and seven (Nos. 15938 to 15944) from Yokohama, Musashi Province, 1906. The scale counts are as follows:

No.	Sex	Scale Rows	Gastrosteges	Urosteges	Anal	Supralabials	Infralabials	Preoculars	Postoculars	Temporals
15937	♂	17	195	73c	2	8-8	9-9	1-1	2-2	2+2-2+2
15938	♀	17	186	74c	2	8-8	10-10	1-1	2-2	2+3-2+3
15939	♀	17	201	73c	2	8-8	10-9	1-1	2-2	2+2-2+3
15940	♂	17	197	72c	2	8-8	9-10	1-1	2-2	2+2-2+3
15941	♀	17	205	72c	2	8-8	9-10	1-1	2-2	2+3-2+3
15942	x	17	200	72c	2	8-8	10-10	1-1	2-2	2+2-2+3
15943	♀	17	204	70c	2	8-8	10-10	1-1	2-2	2+3-2+3
15944	♀	17	197	73c	2	8-8	10-10	1-1	2-2	2+3-2+3

27. *Pelamydrus platurus* (Linné)

A single sea-snake of this species (No. 15000) was taken in Suruga Bay, Feb. 1, 1906. It is a male, and has scales in 47 rows on the neck and 51 on the body, gastrosteges 327, urosteges 42c, anal divided, supralabials 9-8, infralabials 11-12, preoculars 2-1, postoculars 2-2, and temporals 2+3-2+3.

28. *Agkistrodon blomhoffii blomhoffii* (Boie)

Five typical specimens from Hondo are represented in the collection.

15956 and 15957. Yokohama, Musashi Province, 1906.

15958. Kobe, Settsu Province, Sept. 24, 1906.

16906. Miyazu, Tango Province, Oct. 5, 1908.

25957. Tappanzaki, Rikuoku Province, 1910.

The scale counts are as follows:

No.	Sex	Scale Rows	Gastrosteges	Urosteges	Anal	Supralabials	Infralabials	Preoculars	Postoculars
15956	juv.	21	136	45c	1	7-7	10-10	2-2	2-2
15957	♀	21	144	46c	1	7-7	11-10	2-2	2-2
15958	♂	21	140	54c	1	7-7	10-10	2-2	2-2
16096	♀	21	143	48c	1	7-7	10-10	2-2	2-2
25957	juv.	21	138	53c	1	7-7	10-10	2-2	2-2



### 29. *Clemmys japonica* (Temminck and Schlegel)

Two young turtles of this species (Nos. 15825 and 15826) were collected at Yokohama, Musashi Province, Oct. 1906; No. 16038, an adult with black lower surfaces, was taken at Miyazu, Tango Province, Sept. 25, 1908.

### 30. *Geoclemys reevesii* (Gray)

No. 15827 was collected at Yokohama, Musashi Province, Oct. 31, 1906. Two large, black specimens (Nos. 15828 and 15829) were collected at Kobe, Settsu Province, Sept. 25, 1906. They are without markings, even on the sides of the neck.

### 31. *Chelonia japonica* (Thunberg)

A young, green turtle (No. 15823) is labeled merely "Nippon."

### 32. *Amyda japonica* (Temminck and Schlegel)

No. 15824 is a young, soft-shelled turtle taken at Tokyo, Musashi Province.

## SADO ISLAND

### 1. *Rana temporaria temporaria* Linné

Two frogs were collected at Aikawa, Sado Island, Oct. 6, 1909. They have short snouts, large webs, unspotted throats, and dorso-lateral ridges which flare out toward the tympanum. The outer metatarsal tubercle is present in both. The vomerine teeth are behind the choanæ in No. 26756; between and behind in No. 26755. It is interesting to know that *Rana temporaria* is the frog of this small island which lies near the west coast of Hondo.

## AWAJI ISLAND

### 1. *Triturus pyrrhogaster* (Boie)

Six specimens (Nos. 16341 to 16346) were collected at Sumoto, Oct. 11, 1908.

### 2. *Bufo vulgaris japonicus* Schlegel

Two specimens of this toad were taken at Fukura.

16299. Oct. 16, 1908. Large webs; large tympanum; faint dark line on lower jaw; reduced black on sides and belly.

16423. June 17, 1909. Large web; large tympanum; faint jaw line; few spots on belly.

### 3. *Hyla aborea japonica* Günther

Thirty-four specimens are represented, as follows:

- 16280 and 16281. Fukura, Oct. 16, 1908.  
16282 to 16289. Sumoto, Oct. 11, 1908.  
16347. Sumoto, Oct. 11, 1908.  
16395 to 16402. Yura, June 21, 1909.  
16405 to 16407. Habu, June 20, 1909.  
16411 to 16415. Fukura, June 17, 1909.  
16416 to 16422. Fukura, June 18, 1909.

### 4. *Rana nigromaculata nigromaculata* Hallowell

Four frogs of this species (Nos. 16123 to 16126) were secured at Sumoto, Oct. 11, 1908.

### 5. *Rana japonica* (Günther)

Seven typical specimens (Nos. 16155 to 16161) were collected at Fukura, Oct. 15, 1908. They all have long snouts and small webs. The vomerine teeth are between the choanæ in Nos. 16158, 16159, and 16161; between and behind the choanæ in Nos. 16155, 16156, and 16157; and mostly behind in No. 16160. The dorsolateral glandular ridge is nearly straight anteriorly in all seven.

### 6. *Rana rugosa* Schlegel

Twenty specimens (Nos. 16190 to 16209) were collected at Sumoto, Oct. 11, 1908.

### 7. *Rana limnocharis* Wiegmann

We have seven frogs of this species from Awaji Island. Two of these (Nos. 16183 and 16184) were taken at Fukura in Oct., 1908. The others (Nos. 16185 to 16189) were collected at Sumoto, Oct. 11, 1906.

### 8. *Takydromus tachydromoides* (Schlegel)

Eight grass lizards of this species are represented as follows:

- 16057 to 16060. Sumoto, Oct. 2, 1908.  
16061. Fukura, Oct. 14, 1908.  
16404. Habu, June 20, 1909.  
16409 and 16410. Fukura, June 17, 1909.

### 9. *Natrix tigrina tigrina* (Boie)

Four specimens from Sumoto have the following scale counts:

No.	Sex	Scale Rows	Gastrosteges	Urosteges	Anal	Supralabials	Infralabials	Preoculars	Postoculars	Temporals
16078	♂	19	151	83c	2	7-7	9-9	2-2	3-3	1+2-1+2
16079	♀	19	161	67c	2	7-7	8-9	2-2	3-3	1+2-1+2
16080	♀	19	163	71c	2	7-7	10-9	2-2	3-3	1+2-1+2
16081	♀	19	163	76c	2	7-7	9-9	2-2	4-3	1+2-1+2

### 10. *Elaphe quadrivirgata* (Boie)

Four of these snakes (Nos. 16092 to 16095) collected at Sumoto, Oct. 11, 1908, and one (No. 16408) secured at Fukura, June 18, 1909, give the following scale counts:

No.	Sex	Scale Rows	Gastrosteges	Urosteges	Anal	Supralabials	Infralabials	Preoculars	Postoculars	Temporals
16092	♀	19	197	85c	1	8-8	11-11	2-2	2-2	2+2-2+2
16093	♂	19	205	90+	2	8-8	10-9	2-2	2-2	2+3-2+2
16094	♂	19	200	91c	1	8-9	10-10	2-2	2-2	2+3-2+2
16095	♂	19	202	89c	1	8-8	10-10	2-2	2-2	2+2-2+3
16408	♂	19	206	92c	1	8-8	10-10	2-2	2-2	2+2-2+2

### 11. *Agkistrodon blomhoffii blomhoffii* (Boie)

No. 16097 is a male taken at Fukura, Oct. 14, 1908. It has scales in 21 rows, gastrosteges 142, urosteges, 49, anal single, supralabials 7-7, infralabials 10-11, preoculars 2-2, postoculars 2-2, and temporals 1+3-1+3.

## THE SEVEN ISLANDS OF IDZU

### 1. *Eumeces laticutatus okadae* Stejneger

Our only specimen of this lizard (No. 27229) is one of the original specimens described by Dr. Stejneger. It formerly was No. 36531 of the U. S. National Museum collection, and was collected by Okada on Nii shima, Idzu. It has twenty-eight scales around the body, fifty-four between the parietals and the backs of the thighs, eighteen under the fourth toe, seven supralabials, and one and three nuchals, as recorded in these Proceedings, Ser. 4, Vol. III, 1912, p. 214.